



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.08.2002 Bulletin 2002/35

(51) Int Cl.7: **B23Q 11/00**

(43) Date of publication A2:
21.11.2001 Bulletin 2001/47

(21) Application number: **01111594.6**

(22) Date of filing: **12.05.2001**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Carraro Alberto**
36030 Fara vicentino (IT)

(74) Representative: **Bettello, Pietro, Dott. Ing.**
Studio Tecnico
Ingg. Luigi e Pietro Bettello
Via Col d'Echele, 25
36100 Vicenza (IT)

(30) Priority: **15.05.2000 IT VI000094**

(71) Applicant: **FAMA S.r.l.**
36030 Fara Vicentino (Vicenza) (IT)

(54) **Interception unit to be inserted in a metal chip transport system**

(57) It is an intercepting unit inserted in a metal chip transport system, where chips are handled through a suction action of the same through manifolds maintained at negative relative pressure. Said intercepting

unit is characterised in that it comprises two pneumatic devices, of which one activates the air flow that sweeps the chip manifold, and the other controls the opening and closing of a gate that lets the collected chips fall in the discharge pipe.

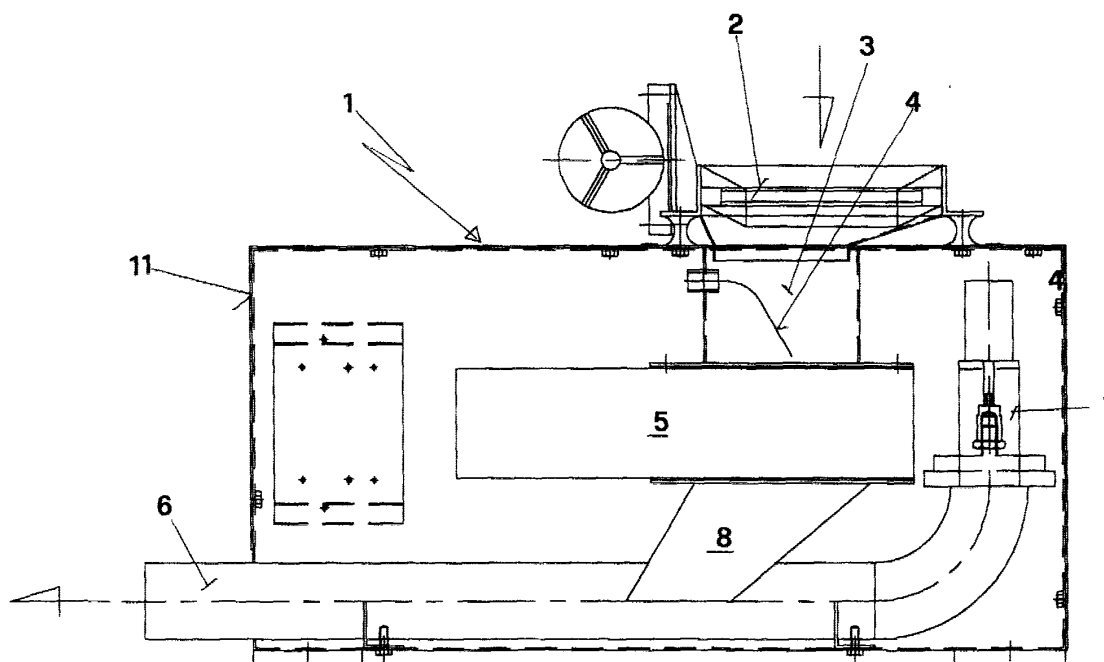


FIG 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 11 1594

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 09, 30 July 1999 (1999-07-30) -& JP 11 114764 A (MITSUBISHI PLASTICS IND LTD; MATSUI MFG CO; ORIENT:KK), 27 April 1999 (1999-04-27) * abstract; figures *	1	B23Q11/00
A	PATENT ABSTRACTS OF JAPAN vol. 009, no. 007 (M-350), 12 January 1985 (1985-01-12) -& JP 59 156645 A (NAIGAI DENKI KOGYO KK), 5 September 1984 (1984-09-05) * abstract; figure *	1	
A	EP 0 527 388 A (GI PI SRL) 17 February 1993 (1993-02-17) * column 1, line 24 - line 28 * * column 5, line 17 - line 32 * * figures 1,3,5,6 *	1	
A	US 5 915 438 A (BROWN BILL ET AL) 29 June 1999 (1999-06-29) * column 2, line 31 - line 57 * * figure 1 *	1	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B23Q
A	US 4 753 665 A (FAHEY JAMES) 28 June 1988 (1988-06-28) * column 5, line 15 - line 32 * * figure 2 *	1	
A	US 5 230 793 A (LENHART THOMAS W ET AL) 27 July 1993 (1993-07-27) * the whole document *	1	
		-/--	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 July 2002	Examiner Breare, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (P04C01)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 11 1594

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	DE 30 07 345 A (RINGER BERNHARD) 10 September 1981 (1981-09-10) * column 6, paragraph 2 * * column 9, line 5 - column 13, last line * * figure * ---	1
A	GB 2 061 487 A (KLAUSEN S P;HANSEN A E) 13 May 1981 (1981-05-13) * page 1, line 47 - line 68 * * figures * -----	1
The present search report has been drawn up for all claims		
Place of search		Date of completion of the search
THE HAGUE		5 July 2002
Examiner		Breare, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		

EPO FORM 1503 03/02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 11 1594

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-07-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 11114764 A	27-04-1999	NONE	
JP 59156645 A	05-09-1984	JP 1425588 C JP 62029174 B	15-02-1988 24-06-1987
EP 0527388 A	17-02-1993	IT 1249983 B DE 69229251 D1 DE 69229251 T2 EP 0527388 A2 ES 2132098 T3 US 5284303 A	30-03-1995 01-07-1999 09-12-1999 17-02-1993 16-08-1999 08-02-1994
US 5915438 A	29-06-1999	NONE	
US 4753665 A	28-06-1988	JP 62049924 A DE 3667507 D1 EP 0212978 A2 IN 168122 A1 KR 9311945 B1 US 4820317 A	04-03-1987 18-01-1990 04-03-1987 09-02-1991 22-12-1993 11-04-1989
US 5230793 A	27-07-1993	NONE	
DE 3007345 A	10-09-1981	DE 3007345 A1	10-09-1981
GB 2061487 A	13-05-1981	DK 42079 A DE 3003406 A1 NO 800244 A SE 8000839 A	02-08-1980 14-08-1980 04-08-1980 02-08-1980

EPD FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82